The Preparation of Lacquers (Coating Films) from Polystyrene Residues Obtained During The Manufacture of Synthetic Rubber

University (under the guidance of Professor S.V. Zavgorodniy) are reviewed. The vat residues contain polystyrene, which is used in the manufacture of organic glass, resins, acid resistant vessels and lacquers. The authors carried out experiments on their use for the preparation of lacquers and coloured coating compositions and tested the properties of the coatings. They found that the coatings were light-stable, resistant to the action of alkali, alcoholic media, industrial water, concentrated sulphuric acid etc. The polystyrene coatings can also be used in electrical and radio-technical apparatus as they show good electrical insulating properties. The physical and chemical characteristics of the resins are listed in Table 1 and the yield of resins in Table 2. A plant for the separation of the resins from the vat residue was constructed on pilot plant scale (Figure 1). During these experiments, 75 kg of vat residues were processed at a temperature of 20 to 30°C and a pressure of 750 to 745 mm Hg. Distillation was carried out up to 220 to 240°C (750 to 745 mm Hg); a 30 to 40% yield was obtained. Three different compositions

The Preparation of Lacquers (Coating Films) from Polystyrene Residues Obtained During the Manufacture of Synthetic Rubber

of lacquers are given in Table 3, and similarly the composition of coloured coatings in Table 4. The dependence of the viscosity of the polystyrene lacquer on the temperature is shown in the form of a graph (Figure 2). The Voronezh factory "Khimprodukt" commenced the processing of polystyrene vat residues from synthetic rubber manufacture in 1957, and is at present producing lacquers for the furniture industry and for interior decoration. There are 2 figures and 4 tables.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet i zavod sinteticheskogo kauchuka im S.M. Kirova (Voronezh State University and Factory for Synthetic Rubber im S.M. Kirov)

PETRENKO, L.P.; SMOL'YANINOVA, Yu.L.

Reaction of 2-butene with benzoyl chloride. Zhur.ob.khim. 33 no.6:2041-2042 Je '63. (MIRA 16:7)
(Butene) (Benzoyl chloride)

PETRENKO, L.P.

Reactions of acetyl chloride with styrene. Zhur. ob. khim. 33 no.5:1641-1643 My '63. (MIRA 16:6)

(Acetyl chloride) (Styrene)

PETRENKO, L.P.

Reactions of triphenylstibine with sodium salts of N-Bromoamides of chloro-, bromo-, and iodacetic acids. Trudy VGU 49:19-23 '58. (MIRA 13:5)

(Stibine) (Acetic acid)

PETRENKO, L.P.

Reactions of p-, o-, and m-tritolylstibines with sodium salts of N-bromoamides of acetic and chlorbacetic acids. Trudy VGU 49: 25-29 '58. (MIRA 13:5)
(Stibine) (Acetic acid)

PETRENKO, L.P.

Reactions of triphenylstibine with sodium salts of N-chloroamides of benzene- and toluenesulfonic acids. Trudy VGU 57:145-147 '59. (MIRA 13:5)
(Stibine) (Benzenesulfonic acid) (Toluenesulfonic acid)

PETRENKO, L.P.

USSR/Chemistry - Reaction processes

Card 1/1 : Pub. 151 - 25/37

Authors : Petrenko, L. P.

Title : Reaction of triphenylstibine with sodium salt of N-bromacetamide

Periodical : Zhur. ob. khim. 24/3, 520-521, Mar 1954

Abstract : The reaction of triphenylstibine with sodium salt of N-bromacetamide was investigated at various time intervals, temperatures, in different solutions and with various reagents. Only by adding a small amount of concentrated hydrochloric acid in the role of a catalyst was it possible to obtain the condensation product - triphenylstibineacetimine - $(C_6H_5)_3Sb + CH_3CONNa$ $BrNaBr + (C_6H_5)_3SbNCOCH_3$. The composition of this compound was confirmed by the formation of derivatives with cupric and mercuric chlorides. Five references: 3-USA; 1-USSR and 1-French (1887-1947).

Institution : State University, Voronezh

Submitted : July 20, 1953

PETRENKO, L.P.

USSR/Organic Chemistry - Synthetic Organic Chemistry E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4460

Author : Petrenko, L.P.
Inst : Voronezh University
Title : Synthesis of Alkylenesilane Chlorides

Orig Pub : Tr. Voronezhsk. un-ta, 1956, 42, No 2, 41-43

Abstract : To a solution of $CH_2=CHCH_2MgBr$ (from 0.125 mole $CH_2=CHCH_2Br$ (I) in 90 ml absolute ether are added dropwise 5 g $SiCl_4$, the mixture is heated for 3-4 hours and allowed to stand for 12 hours, after which it is decomposed with a 25% solution of NH_4Cl, containing ice. From the ether extract is obtained triallyl-chlorosilane, yield 5.21%, BP 103-105°/18 mm, $n^{20}D$ 1.4780, d_4^{20} 0.9197. Analogously, from 6 g Mg, 30 g I and 5 g $SiCl_4$ was synthesized diallyl-tetrachlorosiloxane, yield 6.85%, BP 145°/17 mm, $n^{20}D$ 1.4930, d_4^{20} 1.2155. From the oily material obtained by interaction

Card 1/2 - 94 -

SHAPOSHNIKOVA, Z.B.; ABRAMOVA, M.A.; GOLOVIN, P.V.; PETRENKO, L.S.; GERASIMENKO, A.A.

Conditions of the performance of ion exchangers in juice purification. Sakh. prom. 37 no.8:38-41 Ag '63. (MIRA 16:8)

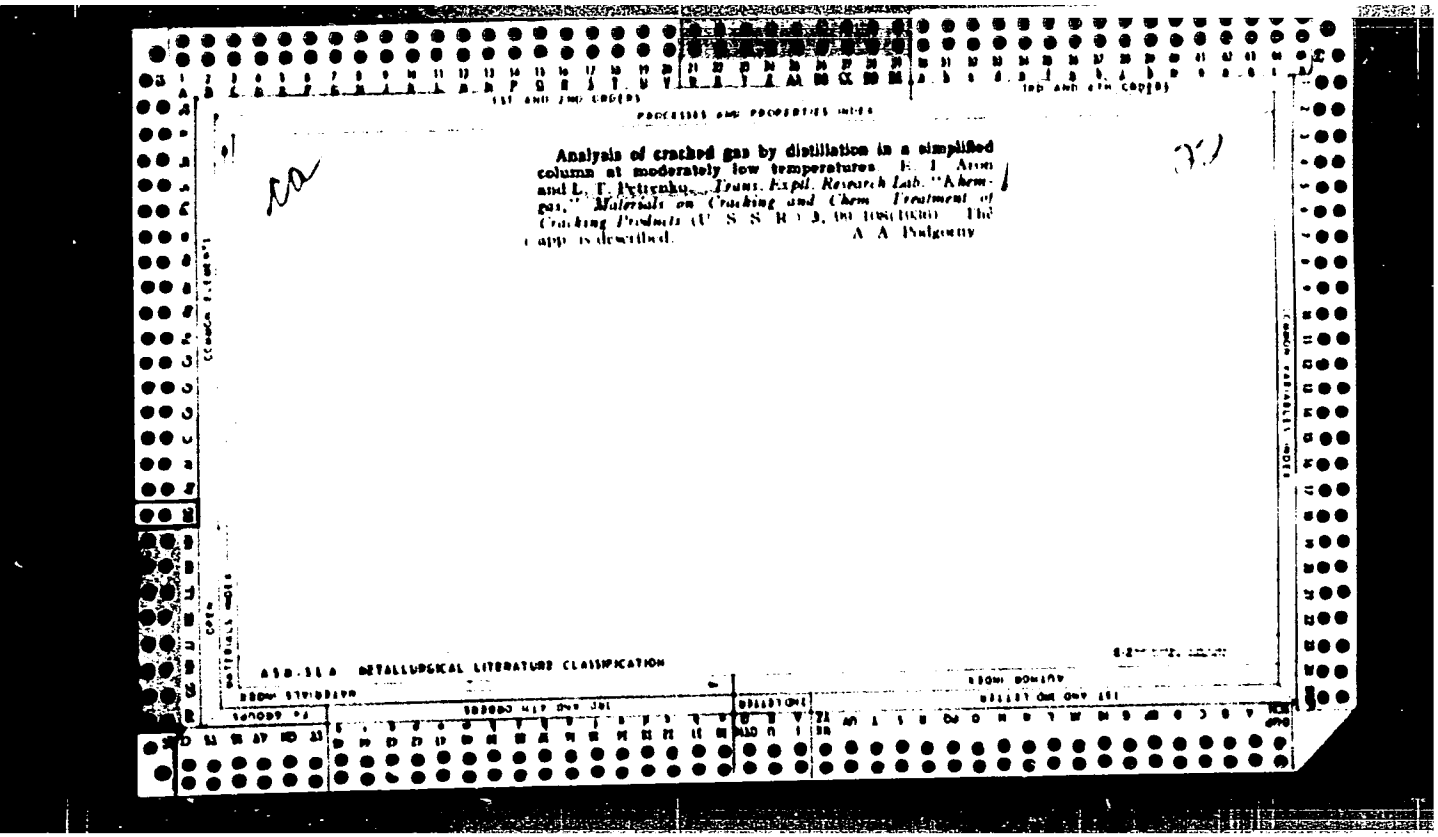
1. Institut mikrobiologii AN UkrSSR.
(Sugar manufacture)
(Ion exchanging substances)

GERASIMENKO, A.A.; ABRAMOVA, M.A.; PETRENKO, L.S.

Determination of the standard quality of sugar-beet juice.
Sakh.prom.35 no.3:31-32 Mr '61. (MIRA 14:3)
(Sugar manufacture--Quality control)

ISKRA, Yevgeniy Vasil'yevich; PETRENKO, L.T., inzh., retsenzent;
KUTSEVALOVA, Ye.P., nauchn. red.; OSIPATROV, O.A., red.;
SHISHKOVA, L.M., tekhn. red.

[Safety measures during painting operations in shipbuilding]
Tekhnika bezopasnosti pri maliarnykh rabotakh v sudostroenii.
Leningrad, Sudpromgiz, 1963. 86 p. (MIRA 16:9)
(Ships--Painting)
(Shipbuilding--Safety measures)



Analysis of cracked gas by distillation in a simplified column at moderately low temperatures. E. I. Arsen and L. T. Petrenko. *Trans. Exptl. Research Lab. "Khimgaz," Materials on Cracking and Chem. Treatment of Cracking Products* (U. S. S. R.) 3, 101 (1938). The apparatus is described. A. A. Bulgerov

ROMANIKA, R., agronom; PETRENKO, M., inzh.

A complex of machines for growing and primary processing of fiber flax. Mekh. sil'. hosp. 13 no.4:14-16 Ap '62. (MIRA 17:3)

PETRENKO, M.; KOBETS', I.

How compulsory education is organized in Yagotin. Mekh. sil'. hosp. 14 no.6:29-30 Je '63. (MIRA 17:3)

1. Korrespondent "Kiivs'koi pravdi" (for Petrenko). 2. Spetsial'nyy korrespondent "Mekhanizatsii sil's'kogo gospodarstva" (for Kobets').

GETALO, N.; CHERNYAK, Z.; PETRENKO, M.

There should be a higher standard for the economic work in Agricultural Bank branches. Fin.SSSR 17 no.6:60-64 Je '56. (MLRA 9:9)
(Agricultural credit)

OBRAZTSOVA, A.A.; PETRENKO,M.B.; KLISHCHEVSKAYA, M.S.

Participation of rhizosphere micro-organisms in the nutrition and development of agriculturel plants grown in deep Chernozem soil. Trudy Inst. mikrobiol. no.11:81-90 '61
(MIRA 16:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut pochvovedeniya imeni A.N.Sokolovskogo.

COUNTRY : USSR J

CATEGORY : Soil Science. Soil Biology.

ABS. JOUR. : RZhBiol., No. 4, 1959, No. [illegible]

AUTHOR : [illegible], L.I.

INST. : Ukrainian Sci.Res.Ins.of Vegetable Raising and*

TITLE : [illegible] of the [illegible] Rhizosphere and Its Influence on the Plant Development.

ORIG. PUB. : Nauchn. tr. Ukr. n.-i. in-t ovoshchevodstva i kartofelya, 1957, 4, [illegible]-232

ABSTRACT : [illegible] investigation [illegible] Fertilizer [illegible] introduced under the [illegible] of manure, [illegible] active ingredi- [illegible] of the micro- organisms [illegible] in the [illegible] of air-dried soil was higher than in soil [illegible] of roots, and it changed

*Potatoes

Card: 1/4

[illegible] ENTRY	:	
CATEGORY	:	
[illegible]. JOUR.	:	Mikrobiol., t. 4, 1959, No. [illegible]
AUTHOR	:	
INST.	:	
TITLE	:	
ORIG. PUB.	:	
ABSTRACT	:	during plant vegetation. Introduction of fertilizers, especially mineral ones, stimulated the development of microorganisms both in the area around the root as well as in the root zones. Microflora of the rhizosphere of the potato, growing from tubers, developed better on media with starch and products of its hydrolysis. Bacteria of the rhizosphere of the potato, grown from sprouts, preferred media with glucose and saccharose, which, according to the author, have

Card: [illegible]

Pages: 1/4

PETRENKO, M.B.; GLUSHCHENKO, V.V. [Hlushchenko, V.V.];
MAKHIN'KO, N.V. [Makhin'ko, N.M.]

Activity of microbiological processes in chestnut soils. Mikrobiol. zhur. 27 no.6:16-20 '65. MIRA 19:1

1. Khar'kovskiy gosudarstvennyy universitet im. Gor'kogo.

P[illegible]MK, M.E., Cand Bio Sci -- (diss) "Microbiological [illegible] of the potato rhizosphere." Khar'kov, 1953. 19 pp (Min of Agriculture USSR. Khar'kov Order of Labor Red Banner Agr[illegible] Inst im V.V.Dokuchayev), 150 copies (KL,43-53, 115)

USSR/Medicine - Cl. perfringens PETRENKO, M. D. FD 145

Card 1/1

Author : *Nechayevskaya, M. R. and Petrenko, M. D.

Title : Anaerobic infections in hibernating animals

Periodical : Zhur. mikrobiol. epid. i immun. 5, 9-11, May 1954

Abstract : A state of hibernation was produced in susliks (Citellus citellus) by maintaining them at a temperature of 6-8°C. 17 susliks, 3 serving as control animals, were administered a predetermined lethal dose of Cl. perfringens. Only 3 of the 14 hibernating animals died. The control animals all died within 18-20 hours from gas gangrene. No infection developed in three of the hibernating animals that survived. The others developed only limited local infections at the injection site. These results, according to the authors, were attributable to the inhibition of the central nervous system during hibernation. No references are cited.

Institution : Anaerobic Division (Head-*M. R. Nechayevskaya) of the Khar'kov Institute of Vaccines and Serums imeni I. I. Mechnikov (Director - Candidate of Medical Sciences G. P. Cherkas)

Submitted : August 12, 1953

PETRENKO, M.D.

VOLOVICH, N.I.; KRASOVITSKAYA, A.M.; ZLATOPOL'SKAYA, R.D.; MIKULINSKAYA, R.M.; PETRENKO, M.D.; ZHUK, A.S.; CHERNYAVSKAYA, L.N.; GOL'DENBERG, R.A.

Studies on the efficiency of enteral immunization against dysentery with poly-antigen immunogen; aughors' abstract. Zhur.mikrobiol.epid. i immun. no.8:32-33 Ag '54. (MLRA 7:9)

1. Iz Khar'kovskogo instituta vaktsin i syvorotok imeni Mechnikova (dir.kandidat biologicheskikh nauk G.P.Cherkas) i Khark'kovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach A.I.Stul'nikov)

(DYSENTERY, BACILLARY, prevention and control, *poly-antigen immunogen)
(ANTIGENS AND ANTIBODIES, *poly-antigen immunogen in prev. of bacillary dysentery)

PETRENKO, M. D.

5811. Influence of medicinal hypnosis on development of experimental anaerobic infection. N Ia Denisova, G P Cherkas, and

PETRENKO, M. D.

5878. Study of conditions for toxin-formation in *Cl. perfringens.* M. R. Nechaevskaia, N. Ia. Denisova, and M. D. Petrenko *Sborn. Trud. Khar'kov Inst. Vaktsin* 1955 **21** 9–11; *Referat. Zh. Biol.* 1956, Abstr. No. 84935.—A study of toxin formation in *Clostridium perfringens* on various nutrient media showed that the least suitable was liver bouillon and the best were tryptic digest media. The optimal quantity of amino nitrogen for toxin formation is 260–290 mg.%. The max. of toxin formation occurred on Hottinger's bouillon after 6–7 hr. cultivation, and on Martin's bouillon after 8 hr. The optimal temp. for cultivation is 34–35°. Toxins obtained on tryptic bouillon from internal organs were weaker than toxins formed on medium from mouse tissue. For the toxin formation of *Cl. perfringens* tryptic bouillon from beef containing 270—290 mg.% of amino nitrogen, 1·5—2·5% of peptone with the addition of dextrin is suggested and by way of a buffer, chemically pure chalk. A detailed description is given of the method of preparing the medium. From inoculation on to this medium of a strain of *Cl. perfringens* VROK there was obtained a toxin containing 200—250 LD_{50} per ml.

C. C. BARNARD

(Russian)

PETRENKO, M.D.

5870. **Conditions for regular toxin-formation in *Clostridium perfringens*.** G. P. Gincrias M. R. Nechaevskaia, N. Ia. Denisova, and M. D. Petrenko *Sborn. Trud. Kharkov Inst. Vaktsin*, 1955, 21, 15–17; *Referat. Zh. Biol.* 1958 Abstr. No. 84936. A study of the conditions under which it is possible to obtain *Cl. perfringens* toxin of uniform activity. There appeared to be no relation between age of initial culture and uniformity of toxin formation. A relation was found between titre of toxin in the initial culture and subsequent toxin-formation; the higher the activity of toxin in the initial inoculated culture, the higher the titre in the bouillon. On inoculating a nutrient medium with a culture, previously dried in a vacuum apparatus, the strength of the toxin formed fluctuated within negligible limits (100–125 DL_{50} per ml.). Extremely effective was the employment as the initial dry culture of one previously passaged through pigeons with a toxicity of 300–400 LD_{50} per ml. (for the VR6K strain). With this there was regularly obtained a strain VR6K *Cl. perfringens* toxin with a strength of 300–400 LD_{50} per ml. (Russian) C. C. BARNARD.

Petrenko, M.D

1088. Constitution of toxin of *Clostridium gangraenae rubrae*. M. D. Petrenko *Sborn. Trud. Kharkov. Inst. Vaktsin.*, 1955, 21, 27—31; *Referat. Zh. biol. Khim.*, 1956, Abstr. No. 14610.—The toxin of *Cl. gangraenae rubrae* has a mosaic structure, is characterised by lethal, necrotic, and haemolytic properties, contains sp. components (lecithinase, haemotoxin) and non-sp. (gelatinase, fibrinolysin, and anticoagulase). The lethal and necrotic properties are the least resistant to the action of physical and chemical factors, and moreover there is complete correspondence between these properties of the toxin of the microbe. The toxin possesses diffusion activity. (Russian)

C. C. BARNARD

Petrenko, M D

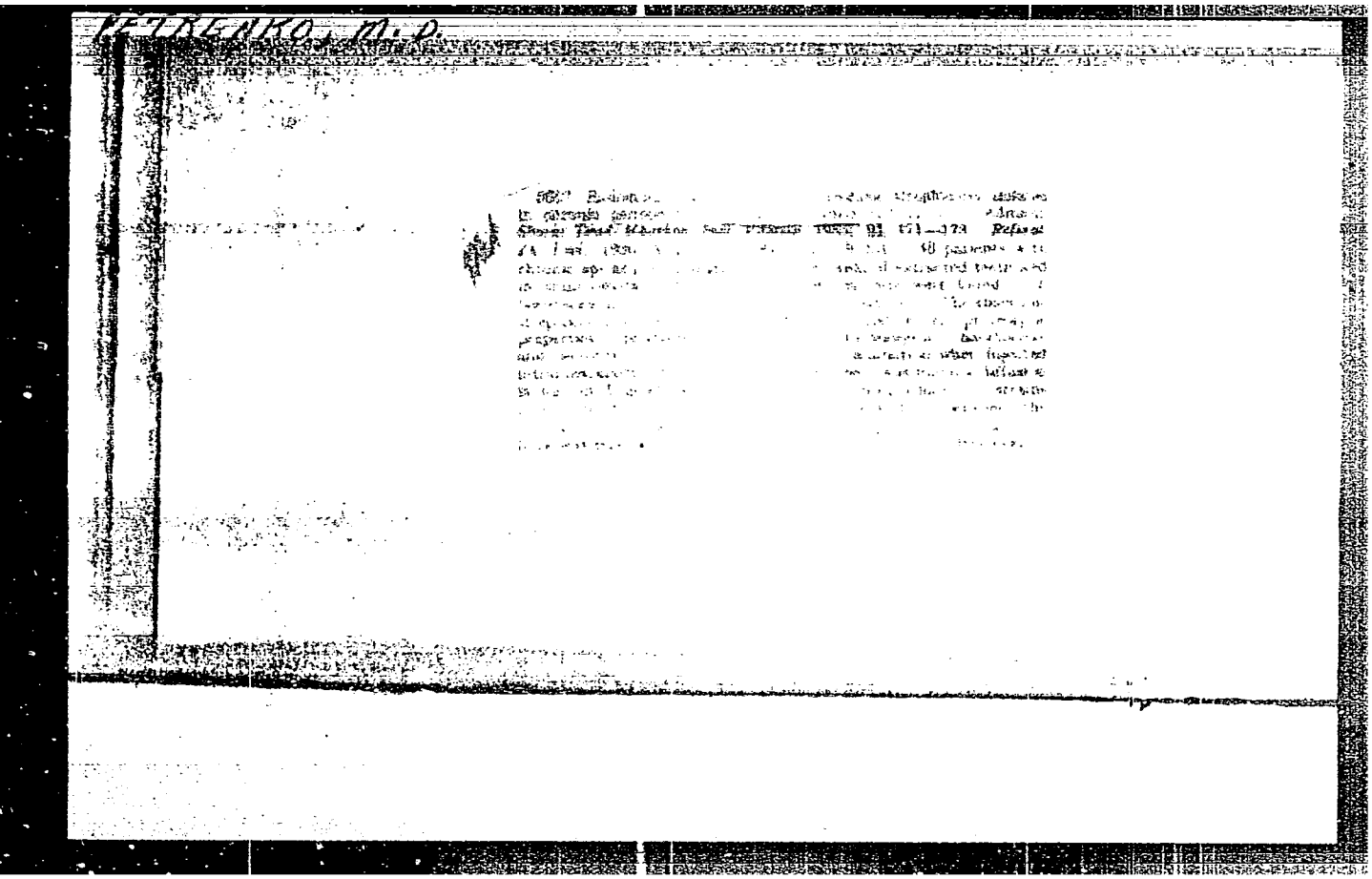
Petrenko, M.D.

1033. Constitution of toxin of *Clostridium oedematiens*. N I Denisova and M L Petrenko *Sborn Trud Khark* [illegible] 1955 21 73 [illegible] (*Referat Zh* [illegible] 1956 Abstr N [illegible])

The toxin [illegible] possesses lethal [illegible] and haemolytic properties [illegible] lecithinase, gelatinase, fibrinolysin, hyaluronidase and promotes diffusion. Certain components do not appear in all series of the toxin and their activity varies. A study of the effect of various physical and chemical factors—temperature, diffused light, ultraviolet light, formalin—upon the toxin of the microbe showed unequal stability of the different components of the toxin, apparently each of the components is separate except the lethal and necrotic, which probably represent one substance. (Russian)

C. C. Barnard

2



KHAYKINA, A.S.; DUBRAVINA, G.I.; RACHINSKAYA, A.Z.; PETRENKO, M.D.; MITEL'MAN, P.M.; KHODOROVA, Z.N.; KATS, F.M.; KISELEV, R.I.; GAYDAMAKA, M.G.; VOLOVICH, B.I.; BEKKER, M.L.; GORDIYENKO, Ye.G.; VYSOCHINENKO, Ye.K.; TELESHEVSKAYA, M.A.; NAYDEROVA, Yu.T.

Production of the active fraction of hyperimmune horse sera by means of the alcohol precipitation method under a low temperature. Nauch. osn. proizv. bakt. prep. 10:159-167 '61. (MIRA 18:7)

1. Khar'kovskiy institut vaktsin i syvorotok im. Mechnikova.

PETRENKO, M.P

S/198/62/008/005/008/009
D234/D308

AUTHOR: Botte, O. V.

TITLE: Dissertations defended in 1961 at the Institutes of the Division of Technical Sciences, AS UkrSSR, in the field of mechanics

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Instytut mekhaniky. Prikladna mekhanika, v..8, no. 5, 1962, 571-575

TEXT: The following dissertations were presented by the collaborators of the above section and approved: For the degree of Candidate of Technical Sciences: Instytut mekhaniky (Institute of Mechanics): Vasyl' Mykolayovych Buyvol, Aspirant: 'Plane problems of the theory of elasticity for multiply-connected regions with cyclic symmetry', on March 16, 1961, at Dnipropetrovsk Universty. Yaroslav Mykhaylovich Hryhorenko, Junior Scientific Collaborator: 'Stressed state of round plates and conical shells of linearly varying thickness under asymmetric loads', on April 6, at Dnipropetrovsk University. Igor Tymofiyovych Selezov, Aspirant, 'Investigation of the propa-

Card 1/3

gation of elastic waves in plates and shells', on June 19, at Kyyivs'kyy politekhnichnyy instytut (Kiev Politechnic Institute). Andriy Feofanovych Ulitko, Aspirant, 'Solution of 3-dimensional problems of the theory of elasticity by the method of vector eigenfunctions', on September 26, at Kiev University. Mikhaylo Petrovych Petrenko, Junior Scientific Collaborator, 'Transverse and longitudinal vibrations in short rods of constant and variable thickness, due to impacts', on October 24, at Kiev University. Mariya Dmytrivna Synyavs'ka, Junior Scientific Collaborator, 'Increase of wear resistance of piston rings of integral combustion engines with the aid of galvanic coating', on October 24, at Kyyivs'kyy avtomobil'no dorozhnyy instytut (Kiev Institute of Automobiles and Highways). Heorkiy Ivanovych Dybenko, Engineer, 'Change of strength and deformability of ДСП (DSP) plastics in time at increased temperatures', on November 28, at Kiev Institute of Automobiles and Highways. For the degree of Doctor of Technical Sciences: Instytut elektrozvaryuvannya im. Ye. O. Patona (Institute of Electric Welding imeni Ye. O. Paton): Boris Oleksiyovych Movchan, Senior Scientific Collaborator, Candidate of Technical Sciences, 'Microscopic

Dissertations defended in ...

inhomogeneities in cast alloys', on May 16, at the Siberian sections of AS USSR. For the degree of Candidate of Technical Sciences: Instytut mashynoznavstva ta avtomatyky (Institute of Machine Science and Automation): Hryhoriy Semenovyen Kit, Junior Scientific Collaborator, 'Approximate solution of the problem of free torsion', on March 16, at Dnipropetrovsk University. Hryhoriy Vasyl'ovych Plyatsko, Junior Scientific Collaborator, 'Nonstationary problems of heat conduction and thermoelasticity', on April 20, at the Institute of Mechanics of AS UkrSSR. Mykola Yuriyovych Shvayko, Aspirant, 'Some problems of elastoplastic torsion of prismatic rods', on December 25, at L'viv University. Instytut metalokeramiky i spetsial'nykh splaviv (Institute of Metal Ceramics and Special Alloys): Volodymyr Ivanovych Kovpak, Aspirant: 'Investigation of durable strength during programmed change of load and temperature', on October 23, at Kiev Polytechnic Institute.

Card 3/3

KACHOROVSKAYA, Ol'ga Vladimirovna, kand. med. nauk; PETRENKO, Marina Feofilovna; MUKAVOV, I.V., red.

[Physical education as a means of preventing premature age-connected changes] Fizicheskaia kul'tura kak sredstvo preduprezhdeniia preshdevremennykh vozrastnykh izmenenii. Kiev, Zdorov'ia, 1964. 47 p. (MIRA 18:1)

PETRENKO, M.I., kand. sel'skokhoz. nauk

Mixed sowing of annual grain crops and legimes as a way for increasing the production of protein-rich feeds. Nauk. pratsi UASHN 17 no.12:81-83 '60. (MIRA 16:7)

(Ukraine—Legimes)
(Ukraine—Corn (Maize))

PETRENKO, M.P. (Kiyev)

Vibrations of a rigid vessel filled with outflowing liquid.
Prikl. mekh. 1 no.8:136-138 '65. (MIRA 18:9)

1. Institut mekhaniki AN UkrSSR.

TKACHENKO, O.Yu., inzh.-mekhanik; PETRENKO, M.P., inzh.-mekhanik

Advanced technology for sugar beet growing. Mekh. sil'. hosp. 14 no.4:9-11 Ap '63. (MIRA 16:10)

PETRENKO, M.P. (Kiyev); KOMISSAROVA, G.L. (Kiyev)

Nonlinear vibrations of elastic rods. Prikl.mekh. 1 no.[illegible] '65.
(MIRA 18:8)

1. Institut mekhaniki AN UkrSSR.

S/0198/64/010/003/0337/0340

ACCESSION NR: AP4037994

AUTHOR: Petrenko, M. P. (Kiev)

TITLE: Distrubance waves in plates of variable thickness in the presence of longitudinal oscillations

SOURCE: Pry%kladna mekhanika, v. 10, No. 3, 1964, 337-340

TOPIC TAGS: wave front, disturbance, oscillation, vibration, elasticity, longitudinal wave, longitudinal oscillation, Kilchevskiy algorithm, propagation, propagation velocity, wave propagation

ABSTRACT: By means of N. A. Kil'chevskiy's algorithm the author obtained a system of differential equations which describes the longitudinal oscillation of a plate with variable thickness. The differential equation for determination of the characteristics curves was composed by the method of characteristics. For the case of an axially-symmetric plate an expression was obtained for the velocity of the longitudinal disturbance waves distributed in concentric circles from the axis of symmetry. It is shown that the influence of the form of the curve of the wave front on the velocity of propagation is substantial only at the start of motion. Orig.

Card 1/2

ACCESSION NR: AP4037994

article has: 26 formulas.

ASSOCIATION: Insty*tut mekhaniky* AN URSR (Institute of Mechanics, AN URSR)

SUBMITTED: 17Jun63 DATE ACQ: 12Jun64 ENCL: 00

SUB CODE: AS, GP NO REF SOV: 003 OTHER: 000

Card 2/2

PETRENKO, M.P. (Kiyev)

Approximate solution of the precise functional equation in the theory of impact. Prykl.mekh. 7 no.5:563-565 '61. (MIRA 14:10)

1. Institut mekhaniki AN USSR.
(Impact)

PETRENKO, M.P.

Efficient utilization of beet harvesting machinery. Mekh. sil'.hosp. 12 no.8:10-12 Ag '61. (MIRA 14:7)

1. Glavnyy spetsialist po mekhanizatsii tekhnicheskikh kul'tur ob"yedineniya "Ukrsel'khoztekhnika".
(Sugar beets--Harvesting)

PETRENKO, M.P., inzh.-mekhanik

New machinery for harvesting flax. Mekh. sil'. hosp. 12 no. 6:12-14 Je '61. (MIRA 14:5)

(Flax—Harvesting)

PETRENKO, M.P. (Kiyev)

Lateral vibrations of short bars caused by their collision with an elastic solid. Prykl.mekh. 7 no.2:171-179 '62. (MIRA 14:4)

1. Institut mekhaniki AN USSR.
(Elastic rods and wires--Vibration)

L 2h198-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(k)/EWA(h) Pf-h/Peb EM

ACCESSION NR: AP5000112 S/0198/64/010/006/0660/0663

AUTHOR: Kil'chevs'kyy, M. O. (Kilchevskiy, N. A.) (Kiev); Petrenko, M. P. (Kiev); Barsuk, R. P. (Kiev); Babych, D. V. (Babich, D. V. (Kiev)

TITLE: Approximate longitudinal and radial vibration analysis of a system of cylindrical shells partly liquid filled

SOURCE: Prykladna mekhanika, v. 10, no. 6, 1964, 660-663

TOPIC TAGS: cylindrical shell, cylindrical shell vibration, liquid filled shell, oscillatory system, elasticity theory

ABSTRACT: The longitudinal and radial vibrations of a system of cylindrical shells partly filled with an inviscid incompressible liquid are investigated. The case of potential motion of the liquid is analyzed. For setting up the equations of motion the authors used the energy methods of elasticity theory and the variational principles of analytical mechanics. In the examined numerical example, consideration of the effect of the liquid and of the elasticity of the bottoms leads to a diminution of basic natural frequency by 63%, but neglect of radial displacements of shells leads to an increase in natural frequency of 18%. Orig. art. has: 18 formulas.

Card 1/2

L 24198-65

ACCESSION NR: AP5000112

ASSOCIATION: Institut mekhaniky AN URSR (Institute of Mechanics, AN UkrSR)

SUBMITTED: 03Dec63 ENCL: 00 SUB CODE: ME

NO REF SOV: 006 OTHER: 000

Card 2/2

KIL'CHEVSKIY, N.A. [Kil'chevs'kyi, M.O.] (Kiyev); PETRENKO, M.P. (Kiyev); BABICH, D.V. [Babych, D.V.] (Kiyev)

Longitudinally radial vibrations of a system of cylindrical shells with concentrated masses in joints. Prykl. mekh. 9 no.6:677-683 '63. (MIRA 16:12)

1. Institut mekhaniki AN UkrSSR.

PETRENKO, M.P. (Kiyev)

Perturbation waves in plates of variable thickness subjected to longitudinal vibrations. Prykl. mekh. 10 no.3:337-340 '64. (MIRA 17:6)

1. Institut mekhaniki AN UkrSSR.

PETRENKO, M. P.

Cand Phys-Math Sci - (diss) "Longitudinal and transverse vibrations arising in short rods of constant and variable thickness under the influence of sudden impacts." Kiev, 1961. 6 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Kiev Order of Lenin State Univ imeni T. G. Shevchenko); 180 copies; price not given; (KL, 10-61 sup, 205)

U-1

USSR/General Problems of Pathology - Shock

Abs Jour : Ref Zhur - Biol., No. 18, 1958, 84815

Author : Nechayevskaya, M.R., Petrenko, M. D.
Inst : Khar'kov Scientific Research Institute of Vaccines and Sera

Title : The Significance of Shock in the Development of Gas Gangrene

Orig Pub : Tr. Khar'kovsk. n.-i. in-ta vaktsin i syvorotok, 1957, Vol. 24, 31-33

Abstract : Rabbits were given sublethal doses of cultures of Clostridium perfringens, and within an hour were led into shock by the injection subcutaneously of six to eight units of insulin. In prolonged shock lasting 13-15 minutes, all ten animals died of gas gangrene. With shock lasting six to seven minutes (following the subcutaneous injection of 0.5 ml adrenalin in a 1:1000 solution and the intravenous injection of 15-25 ml of a 40 percent solution of glucose [i.e. to

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Petrenko, M.D.

USSR/Morphology of Man and Animals - (Normal and Pathologic) S-5
Pathologic Anatomy.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12482

Author : Nechayevakaya, M.P., Toropova, M.N., Petrenko, M.D.
Inst : -
Title : Changes in Tissues and Organs Caused by Cl. gangraenae rubrae

Orig Pub : Sb. tr. Khar'kovsk. n.-i in-ta vaktsin i syvorotok, 1955, 21, 109-112

Abstract : A study was made of the tissues and organs of 25 guinea pigs that died after an intramuscular injection of a Cl. gangraenae rubrae culture. The site of injection was bright red. The muscles, that were a rich red in color, had a small amount of fluid between their fibers. The liver was enlarged and brown on cut surface. Degenerative changes characterized by swollen ganglion cells, smoothed out contours and chromatolysis were found in the brain.

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Petrenko M.I.

DEMIDENKO, T.T.; PETRENKO, M.I., kand.sel'skokhozyaystvennykh nauk.

Companion cropping as a means of increasing protein feeds.
Zemledelie 5 no.12:52-55 D '57. (MIRA 11:1)

1.Chlen-korrespondent AN USSR (for Demidenko).
(Proteins) (Companion crops)

PETRENKO, M. I.

"The Effect of Root Nourishment on the Yield and Quality of Kok-Saghyz." Cand Agr Sci, Kiev Agricultural Inst, Kiev, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions. (10)

So: Sum. No. 481, 5 May 55

PETRENKO, M.I.

DIMIDENKO, T.T.; PETRENKO, M.I., kandidat sel'skokhozyaystvennykh nauk.

Dense stands of corn in the Ukrainian S.S.R. Zemledelie 4 no.11: 75-78 N '56. (MLRA 10:2)

1. Chlen-korrespondent Akademii nauk USSR. (for Demidenko).
(Ukraine--Corn (Maize))

PETRENKO, M. I.

Modifications of the cardiovascular system of rheumatic children due to sulfa baths. Vopr. pediat. 18:3, 1950. p. 3-8

1. Of the Children's Clinic (Head--Candidate Medical Sciences V. S. Gvantseladze), State Balneological Scientific-Research Institute imeni I. V. Stalin (Director--Candidate Medical Sciences S. A. Chikhmaritov).

CLML 19, 5, Nov., 1950

PETRENKO, M.I., kandidat meditsinskikh nauk; KURINOVA, A.V.

Condition of the cardiovascular system during pneumonia in young children. Pediatriia 39 no.1:19-23 Ja-F '56. (MLRA 10:1)

1. Iz kafedry pediatrii (zav. - deyatvitel'nyy chlen AMN SSSR professor G.N.Speranskiy) TsIU (dir. V.P.Lebedeva) na baze detskoy bol'nitsy imeni F.E.Dzerzhinskogo.

(PNEUMONIA, manifest.
cardiovas. system, in inf.)
(CARDIOVASCULAR SYSTEM, in various dis.
pneumonia, in inf.)

PETRENKO, M.L., kand.sel'skokhozyaystvennykh nauk

Companion cropping as a means of increasing the production of protein enriched feeds. Nauch. trudy UASHN 10:41-47 '60.
(MIRA 14:3)

(Forage plants) (Companion crops)

PETRENKO, M.P., inzh.-mekhanik

New method for beet harvesting in production. Mekh. sil'. hosp. 14 no.9:17-18 S '63. (MIRA 17:1)

PETRENKO, M.P. (Kiyev)

Natural vibrations of a point of variable mass and the method of "hardening". Prikl. mekh. 1 no.2:125-128 '65.
(MIRA 18:6)

1. Institut mekhaniki AN UkrSSR.

TKACHENKO, O.Yu., inzh.; PETRENKO, M.P., inzh.

Using new machinery in sugar beet cultivation. Mekh. sil'. hosp. 12 no. 1:27-29 Ja '61. (MIRA 14:1)
(Agricultural machinery) (Sugar beets)

KRIVENTSOV, M.I.; PETRENKO, M.V.; KHOMENKO, A.N.

Comparison of the accuracy of basic methods of forecasting the water salinity of reservoirs. Gidrokhim. mat. 37:49-55 '64. (MIRA 18:4)

1. Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.

Country : [illegible]
CATEGORY : Meadow Cultivation.

ABS. JOUR. : RZBiol., No. 4, 1959, No. 15525

AUTHOR : Petrenko, M.P.
INST. : Inst. of Experimental Biology, AS Kazakh SSR
TITLE : Information on the Mineral Composition of Grassland Forage in the Mountain and Desert Zones of Kazakhstan.

ORIG. PUB. : Tr. In-ta eksperim. biol. AN KazSSR, 1958, 4, 67-73.

ABSTRACT : The grasses and forbs of the mountain pastures on the northern slopes of the Trans-Ili River part of the Altay are distinguished by their high calcium content and comparative lack of phosphorus, as a result of which the calcium to phosphorus ratio can reach 11:1. During dry years many valuable fodder grasses in the deserts drop out of the composition of the forage vegetation, the fodder becoming rich in ash (11.1-20%) and cellulose, and

CARD: 1/2

PETRENKO, N.., inzh.

Results of tests of sugar-beet harvesting combine. Mashinostroenie
no.3:80-8? My-Je '6. (MIRA 1?:1

PETRENKO, N.P., inzh.

The SKD-2 beet-lifting combine. Mashinostroenie no.6:84-86 N-D '63. (MIRA 16:12)

PETRENKO, M.P., inzh.-mekhanik

Methods of harvesting sugar beets. Mekh. sil'.hosp. 11 no.8:27-28 Ag '60. (MIRA 13:9)

(Sugar beets-- Harvesting)

PETRENKO, M.P.

Materials on the mineral composition of pasture feeds in the mountain and desert regions of Kazakhstan. Trudy Inst.eksp.biol. AN Kazakh. SSR 4:67-73 '58 (MIRA 11:7)
(KAZAKHSTAN--PASTURES AND MEADOWS)
(MINERALS IN FOOD)

PETRENKO, M.P. (Kiyev)

Stress waves in case of longitudinal vibrations of rods with variable thickness. Izv.AN SSSR. Otd.tekh.nauk.Mekh.i mashinostr. no.5:160-161 S-O '60. (MIRA 13:9)

1. Institut mekhaniki AN USSR.
(Elastic rods and wires--Vibration)

PETRENKO, M.P., inzh.-mekhanik

SKI-2 sugar beet combine. Mekh. sil'. hosp. 11 no.10:27-28 O '60. (MIRA 13:9)
(Sugar beets—Harvesting)

SAKUN, I.F., naukovyi spivrobitnik; KUTSURUBA, M.V., naukovyi spivrobitnik; PETRENKO, M.P., inzh.-mekhanik

Labor required in the over-all mechanization of sugar beet growing. Mekh. sil'. hosp. [9] no.5:14-15 My '58. (MIRA 11:6)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly.
(Ukraine--Sugar beets) (Labor productivity)

PETRENKO, M.P., inzh.-mekhanik

Design a beet harvester with an attachment for cutting off tops.
Mekh. sil'. hosp. 9 no. 8:30-31 Ag '58. (MIRA 11:8)
(Sugar beets--Harvesting)

L 23937-65 EWT(m)/EWP(b)/T/EWP(t) Pad IJP(c) JD/HW
ACCESSION NR: AP5001557 S/0185/64/009/012/1371/1373

AUTHOR: Pavlyuk, A. O.; Petrenko, M. S.; Pervakov, V. O.; Khotkevych, V. G. B

TITLE: On some peculiarities of the temperature dependence of the increase of the electrical resistivity of the deformed alloy Fe + 50% Ni at low temperatures

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 9, no. 12, 1964, 1371-1373

TOPIC TAGS: resistivity of deformed alloy, martensitic phase formation, ferrous nickel alloy

ABSTRACT: In the iron-nickel alloy with the nickel content below 40%, martensitic transformation is observed on cooling to a sufficiently low temperature. At higher nickel concentrations, this transformation does not take place. However, it can be expected that deformation and cooling will produce in these alloys local formation of martensitic phase. As an indication of the new phase formation, the electrical resistivity was measured (see L. Kaufman and M. Cohen, Trans. Amer. Inst. Min (Metall.) Eng. 206, 1393 (1956)). Fe + 50% Ni alloy was pre-

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pared in the form of wires of 0.2 mm diem. and pressed between metal plates, and the resistance compared with that of annealed specimens. It was found that in specimens which were deformed and measured at -196 C, the increase of resistivity was noticeably greater than in specimens which were deformed at room temperature and measured at -196 C. This is attributed to local martensitic phase formation. The authors are grateful to Y. L. Mirkin for the Fe-Ni alloy. Orig. art. has: 1 figure

ASSOCIATION: Kharkivs'kyy derzhuniversytet im. O. M. Gor'kogo (Khar'kov State University)

SUBMITTED: 10Jul64 ENCL: 00 SUB CODE: MM

NR REF SOV: 002 OTHER: 007

PETRENKO, M.V.

Content of biogenous substances and fluorine in the water of the Novosibirsk Reservoir. Gidrokhim.mat. 36:101-116 '64. (MIRA 18:11)

1. Khimikometallurgicheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk. Submitted May 9, 1961.

PETRENKO, M.V.

Gases in the water of Novosibirsk Reservoir (1957-1959).
Trudy Biol. inst. Sib. otd. AN SSSR no.7:249-260 '61.
(MIRA 15:3)
(NOVOSIBIRSK RESERVOIR—WATER—COMPOSITION)
(GASES)

SAKUN, I., kand. ekon. nauk; PETRENKO, N., inzh.-mekhanik

Enlarged crews of machine operators. Nauka i perod. op. v sel'khoz 9 no.5:6-9 My '59. (MIRA 12:8)
(Farm management) (Agricultural machinery)

KLYAVIR, I., nauchnyy sotrudnik; PETRENKO, M., insh.

Semicontinuous method of harvesting beets is most efficient.
Nauka i pered. op. v sel'khoz. 8 no.10:13-15 O '58. (MIRA 11:11)
(Sugar beets--Harvesting)

KONOVALOV, N., starshiy nauchnyy sotrudnik; PETRENKO, N.

Over-all mechanization of sugar beet growing drastically reduces costs. Nauka i pered. op. v sel'khoz. 8 no.5:38-41 My '58. (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly (for Konovalov). 2. Starshiy inzhener upravleniya novoy tekhniki Ministerstva sel'skogo khozyaystva USSR (for Petrenko).

(Sugar beets) (Agricultural machinery)

PETRENKO, N., inzhener.

Use progressive methods in the cultivation of sugar beets. Nauka i pered. op. v sel'khoz. 7 no.5:43-44 My '57. (MLRA 10:6)
(Sugar beets)

PETRENKO, NIKOLAI

Postal Service - Employees

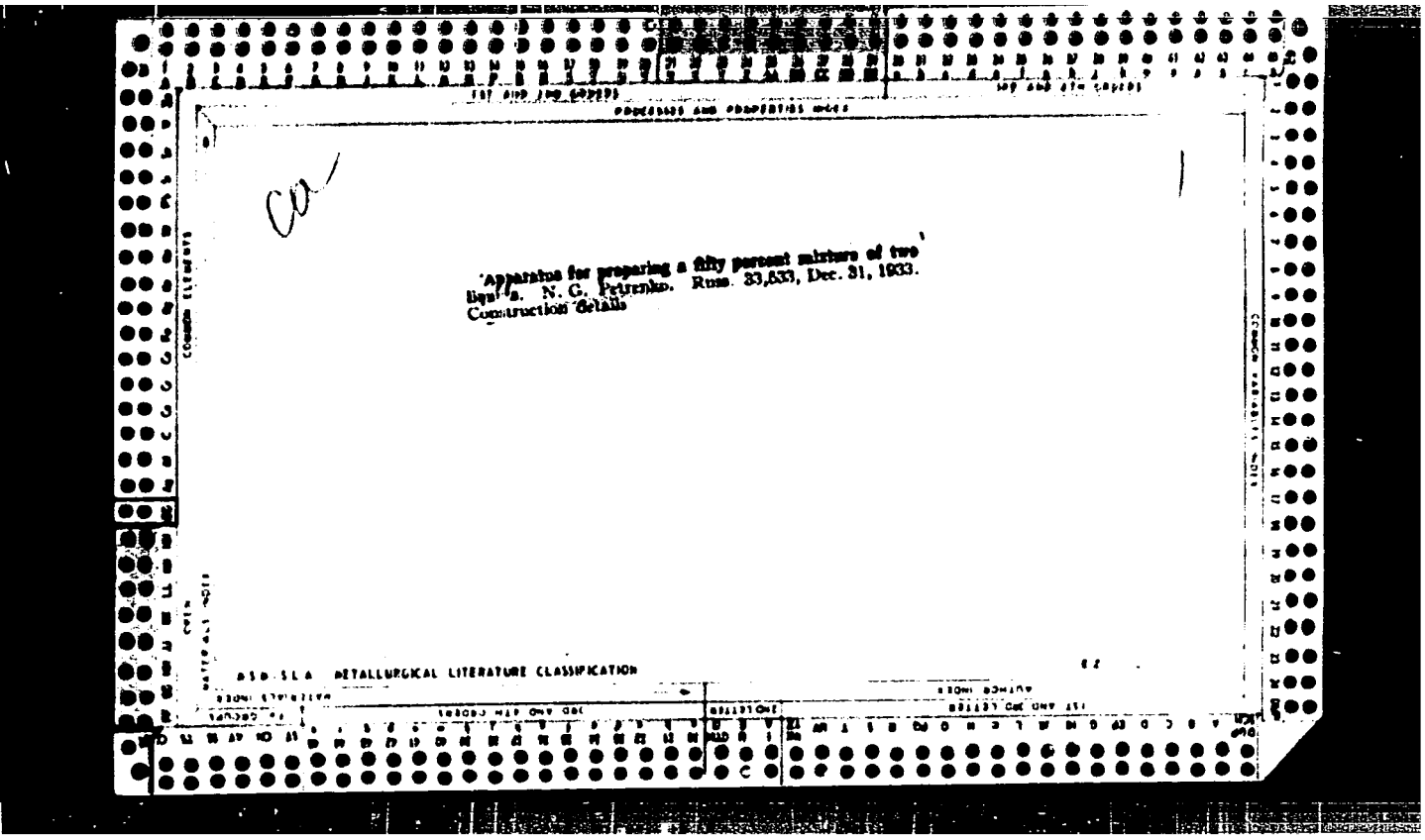
Nikolai Petrenko., Sov. sviaz., No. 6, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March 1952. 1959, Uncl.

PETRENKO, N. D.

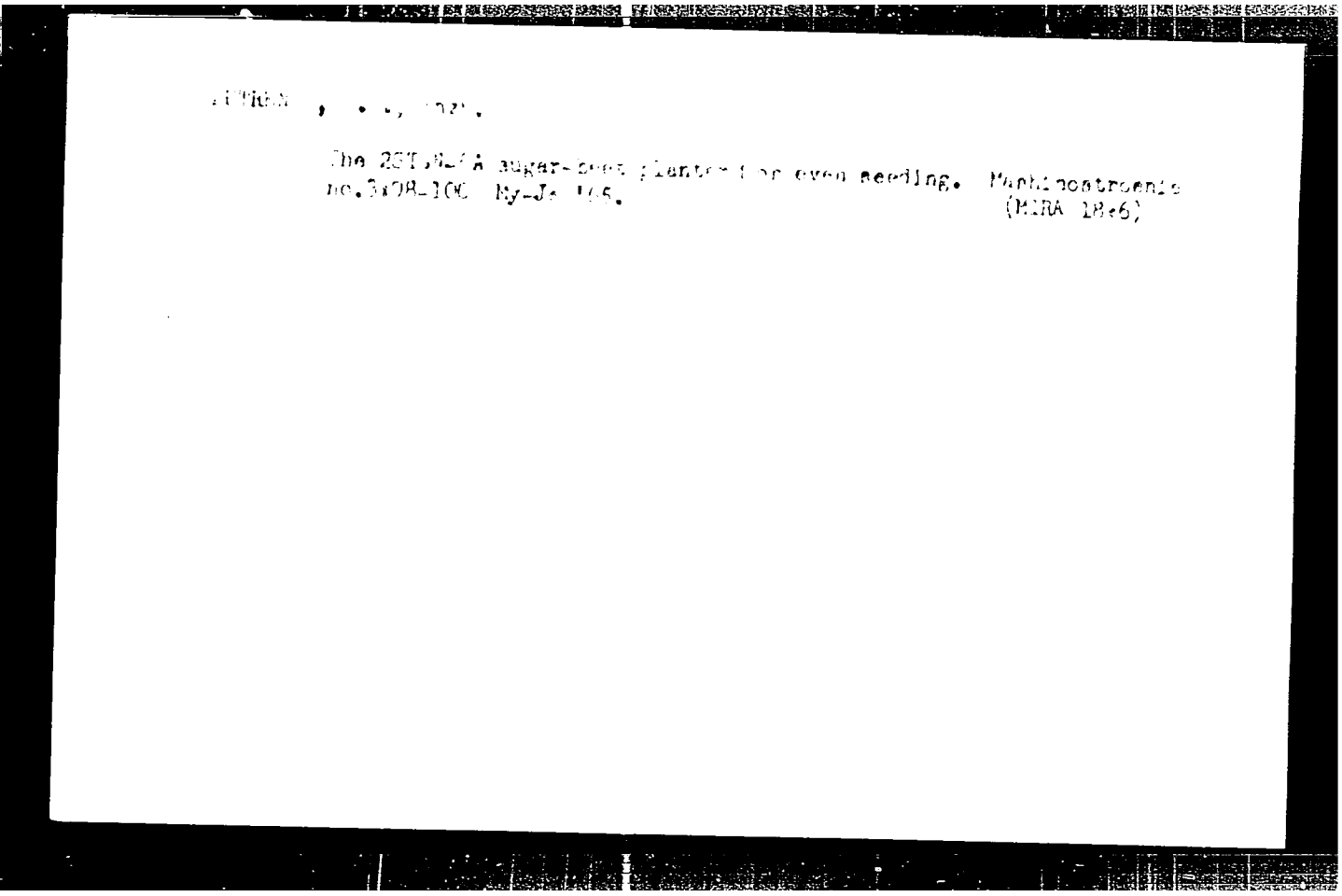
"Gangrene Rubre Clostridium -- Cause of Anaerobic Infection." Cand Med Sci, Khar'kov Medical Inst, Khar'kov, 1954. (RZhBiol, No ?, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).



Apparatus for preparing a fifty percent mixture of two liquids. N. G. Petrenko. Russ. 33,833, Dec. 31, 1933. Construction details

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION



The 25T,W-/A sugar-beet planter for even seeding. Mekhanizatsiia
no.3:28-30 My-Je '65. (MIRA 18:6)

PETRENKO, N.P., inzh.

New technology in the cultivation of sugar beets. Mashinostroenie no.6881-83 N-D '64 (MIRA 18:2)

PETRENKO, N.P., inzh.

Results of testing beet-lifting machines. Mashinostroenie no.3:94-97 My-Je '62. (MIRA 15:7)
(Sugar beets—Harvesting) (Harvesting machinery)

TYAZHELOV, Vadim Innokent'yevich; SAVEL'YEV, A.G., retsenzent; NAUMOV, M.K., retsenzent; LI, N.V., retsenzent; MASHUKOV, I.F., retsenzent; MYAKON'KIY, A.I., gornyy inzh., retsenzent; KUDRYASHOV, V.A., dotsent, retsenzent; PATRENKO, N.P., red.; SOROKIN, T.I. tekhn.red.

[Working a deposit by open-pit mining in the wintertime] Razrabotka mestorozhdenii otkrytym sposobom v zimnii period. Irkutsk, Irkutskoe knizhnoe izd-vo, 1958. 127 p.
(MIRA 14:5)

1. Gornorudnyy kombinat Irkutskogo sovnarkhoza (for Savel'yev, Naumov, Li, Mashukov, Myakon'kikh, Kudryashov)
(Strip mining--Cold weather conditions)

RATEICHUK, Yevgeniy Nikanorovich; PETRENKO, N.P., red.; SHTAMBOK, L.N., tekhn.red.

[Suggestions for greater efficiency in building the Irkutsk Hydroelectric Power Station] Ratsionalizatsiia na stroitel'stve Irkutskoi GES. Irkutsk, Irkutskoe knizhnoe izd-vo, 1958. 28 p. (MIRA 14:1)

(Irkutsk Hydroelectric Power Station)

BESSONOVA, Avgusta Spiridonovna; BENESLAVSKIY, S.I., red.; PETRENKO, N.P., red.; SOROKINA, T.I., tekhn.red.

[Aluminum raw materials of the Irkutsk Province and possible ways to use them] Aliuminievoe syr'e Irkutskoi oblasti i vozmozhnye puti ego ispol'zovaniia. Pod red. S.I.Beneslavskogo. Irkutsk, Irkutskoe knizhnoe izd-vo, 1958. 41 p. (MIRA 13:8)
(Irkutsk Province--Aluminum silicates)

LACHINOV, Nikolay Vladimirovich; NEBRAT, L.Ye., red.; PETRENKO, N.P., red.; SOROKINA, T.I., tekhn.red.

[Maintenance and repair of bearings of auxiliary mechanical equipment of thermoelectric power plants] Remont i nadzor za podshipnikami vspomogatel'nykh mekhanizmov teplovykh elektrostantsii. Irkutskoe knizhnoe izd-vo, 1958. 97 p. (MIRA 12:6)
(Electric power plants--Equipment and supplies)
(Bearings (Machinery)--Maintenance and repair)

SLAVNIN, Geliy Porfir'yevich; PETRENKO, N.P., red.; PECHERSKAYA, T.I., tekhn.red.

[New methods of studying flotation; tagged atoms and high-speed motion pictures] Novye metody izucheniia flotatsii; mechenye atomy i skorostnaia kinos"emka. Irkutsk, Irkutskoe knizhnoe izd-vo, 1959. 103 p. (MIRA 13:2)
(Flotation) (Radioisotopes--Industrial applications)
(Motion pictures in industry)

PETRENKO, N.P., inzhener.

Over-all mechanization of sugar beet harvesting. Nauka i pered.op. v sel'khoz. 7 no.9:24-26 S '57. (MIRA 10:10)
(Sugar beets--Harvesting)

MAKHNEV, Vasiliy Mikhaylovich; PETRENKO, N.P., red.; PECHENSKAYA, T.I., tekhn. red.

[High-speed reaming of steel] Skorostnoe razvertyvanie stali. Irkutsk, Irkutskoe knizhnoe izd-vo, 1960. 175 p. (MIRA 14:9)

(Reamers) (Metal cutting)

ABAKUMOV, Ivan Ivanovich; PETRENKO, N.P., red.; PECHERSKAYA, T.I., tekhn. red.

[Industrial methods in sanitary engineering; from practices of the assembling office of construction in Angarsk] Industrial'nye metody santekhnicheskikh rabot; iz opyta raboty montazhnoi kontory stroitel'stva Angarska. Irkutsk, Irkutskoe knizhnoe izd-vo, 1959. 86 p. (MIRA 17:2)

IVAKHNYUK, V.A., inzh.; MUSATOV, I.G., inzh.; GUINMAN, M.M., inzh.
LOBOYKO, V.N., inzh.; PETRENKO, N.P., inzh.; KONDRASHOV, V.A.,
inzh.

Precast and monolithic caissons in the building for the initial
crushing of ore. Prom. stroi. 42 no. 6:15-17 '65.
(MIRA 18:12)

1. Belgorodskiy otdel Instituta Khar'kovskiy promstroyniiproyekt
(for all except Kondrashov). 2. Trest "KMAgrudstroy" (for Kondrashov).

KHVOROSTUKHIN, Lev Alekseyevich; PROMPTOV, Aleksandr Innokent'yevich; PETRENKO, N.P., red.; KOVALEV, S.R., tekhn. red.

[Turning of hard-to-machine steels] Tochenie trudnoobrabatyvaemykh stalei. Irkuts, Irkutskoe knizhnoe izd-vo, 1959. 25 p. (MIRA 14:10)

(Turning) (Steel alloys)

S/126/61/012/003/020/021
E073/E335

AUTHORS: Pervakov, V.A., Petrenko, N.S. and Khotkevich, V.I.

TITLE: Influence of the plastic deformation on eliminating excess vacancies in quenched gold

PERIODICAL: Fizika metallov i metallovedeniye, v. 12, no. 3, 1961, 460 - 461

TEXT: According to M.A. Bol'shanina (Ref. 1 - Ivz. AN SSSR, ser. fiz., 1950, 14, 223) plastic deformation of metal does not only cause formation of crystal-lattice distortions but also leads to their elimination. According to published work a sufficiently high deformation at room temperature in Al and Au leads to a decrease in the concentration of the excess vacancies. Data are given in this paper on the influence of deformation, at the rate of 10%/min and 10^5 %/min (impact) at 20 and -196 °C, on the increase in the resistance caused by preliminary quenching. The investigations were made on 60 mm long, 0.05 mm dia. wire, made of pure gold (99.99%), which was determined by compressing the wire with two polished steel plates. The quenching was by rapid submersion of the specimens in water. Fig. 1 shows the dependence

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of the relative increase in the resistance as a function of the rate of deformation for specimens which were annealed prior to the experiments (Curve 1) and for specimens which were quenched prior to the experiments (Curve 2); these curves were obtained at low rates of deformation at room temperature. In the medium range of deformation rates intensive elimination of vacancies occurs and at high rates of deformation excess vacancies are completely absent and the process of deformation is practically the same in the quenched and annealed specimens. Fig. 2 shows similar curves plotted for specimens which were deformed by impact (rate of deformation 10^5 %/min) at room temperature. In spite of the possibility of the specimens being heated during the process of deformation, an appreciable elimination of the vacancies occurs at considerably higher rates of deformation. Curves are also given in the paper for specimens deformed at -196 °C; at this temperature practically no elimination of vacancies was observed. Assuming that the behaviour of the excess vacancies during deformation does, to some extent, reflect the behaviour of the vacancies forming during the deformation

process itself, it can be anticipated that for annealed Au specimens which are slowly deformed at room temperature the contribution of the vacancies to the increase in the electric resistance at low degrees of deformation will be greater than at high degrees of deformation. Specimens deformed at low temperatures or specimens deformed by impact at room temperature should contain more vacancies than specimens deformed at a low rate at room temperature. These conclusions on the vacancies are also applicable to other point defects which have a lower temperature stability than vacancies.
There are 3 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The three English-language references mentioned are: Ref. 2 - M. Wintenberger, Symposium by the Institute of Metals, Dec., 1957, London, 1958, 201;
Ref. 3 - M. Wintenberger - Acta met., 1959, 7, 549 and
Ref. 5 - R. Maddin, A. Cottrell - Phil. Mag., 1955, 46, 735.

ASSOCIATION: Khar'kovskiy gosuniversitet im. A.M. Gor'kogo
(Khar'kov State University im. A.M. Gor'kiy)
SUBMITTED: April 27, 1961
Card 3/4 3

GUTERMAN, M.B.; MIRKIN, I.L.; PAVLYUK, A.A., PERVAKOV, V.A.; PETRENKO, N.S.; KHOTKEVICH, V.I.

Certain characteristics of Ni-Cr, Ni-Cr-Mo, and Fe-Ni-Cr-Mo alloys bound in the K-state. Fiz.-met. i metalloved. 20 no.5:733-740 N '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya, Moskva, i Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo. Submitted August 6, 1964.

PETRENKO, N.S., inzh.; MAKSIMENKO, I.N., inzh.

Possibility of increasing the durability of drilling steel.
Gor. zhur. no.7:40-44 Jl '63. (MIRA 16:8)

1. Nauchno-issledovatel'skiy [illegible]gnyy institut, Krivoy Rog.

L 14998-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(h) IJP(c) JD/HW/JG

ACC NR: AP5028563 (N) SOURCE CODE: UR/0126/65/020/005/0733/0740

AUTHOR: Guterman, M. B.; Mirkin, I. L.; Pavlyuk, A. A.; Pervakov, V. A.; Petrenko, N. S.; Khotkevich, V. I.

ORG: TsNII of Technology and Machine Building, Moscow (TsNII tekhnologii i mashinostroyeniya); Kharkov gosuniversitet im. A. M. Gor'kiy (Khar'kovskiy gosuniversitet)

TITLE: Certain features connected with the K-state in Ni-Cr, Ni-Cr-Mo and Fe-Ni-Cr-Mo alloys

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 5, 1965, 733-740

TOPIC TAGS: metal physics, ordered alloy, mechanical property, resistivity, nonferrous metal alloy, ferrous alloy, metal heat treatment, heat resistant alloy, high temperature strength, metal hardening

ABSTRACT: Changes in electrical resistivity in Ni + 15% Cr, Ni + 15% Cr + 18% Mo and Fe + 25% Ni + 16% Cr + 6% Mo alloys were studied as a function of low temperature deformation (from +20° to -196°C) and annealing rate (from 2 to 10^6 deg/min). Decomposition of the K-state in the alloys was observed. The effect of the K-state on high temperature strength was also noted. The K-state causes microscopic inho-

Card 1/2 UDC: 539.4.015